Locking device

The invention relates to a locking device for doors, compartments and flaps, comprising a stator and a rotor which is rotatably mounted in the stator and which is connected directly or indirectly to a locking element. A handle in the form of a rotary knob, which is connected to the rotor in a torque-transmitting manner, can cause an opening or closing movement of the locking element by rotational movement.

Locking devices for doors, compartments and flaps with a rotary knob are known. In some embodiments of a locking device, electronic components and a motor, which is driven by batteries, are present in the rotary knob. Since replacement of the batteries is necessary after a certain period of use, it is desirable to allow access to the batteries in a simple manner.

The object of the present invention is to provide an improved locking device for doors, compartments and flaps, in which replacement of the batteries is possible in a simple manner.

According to an aspect of the present invention, there is provided a locking device for doors, compartments and flaps, comprising a stator and a rotor which is rotatably mounted in the stator and is connected directly or indirectly to a locking element, a battery-operated motor and an electronic control unit acting on the motor being present in the stator, a handle in the form of a rotary knob which is connected to the rotor in a torque-transmitting manner, characterized in that, the handle is held on the rotor by means of a clamping spring, the clamping spring has a receptacle for a magnet, in order to replace the battery for the motor, the clamping connection between the handle and the rotor can be released by external action on the magnet and the clamping spring is formed from a strip which forms a spring bar with a central clamping portion, this spring bar at the lower end forming a holding arm with a U-shaped receiving space for the magnet, this spring bar being bent at the upper end to form a hook.

The novel locking device for doors, compartments and flaps may permit simple assembly and disassembly of the handles and thus a simple replacement of the batteries arranged in the rotary knob.

The new locking device comprises a stator. Electronic and mechanical components for acting on a locking element are present in the housing-like stator. The electronic components belong to a control unit which, after checking a closing authorization, makes it possible to move the locking element. When the closing authorization is detected, a motor is actuated which causes the adjustment of an actuator. This actuator causes the locking of the rotation of the rotor and of the locking element connected to the rotor to be unlocked. This motor is driven via a battery. The rotor is rotatably mounted in the stator, which is connected directly or indirectly to a locking element. A handle in the form of a rotary knob is provided for moving the rotor. In a preferred embodiment, this handle is a cylindrical cap and completely covers both the rotor and the stator. Such a cap consists of a cylinder which is closed on one side, wherein the cylinder is plugged with its opening via the stator and rotor, so that the cylinder jacket and the closed upper side cover the rotor and stator.